

United States**McKinley****3,711,185****Jan. 16, 1973****[54] CATADIOPTRIC TELESCOPE****[76] Inventor:** Harry R. McKinley, Rattle Hill Road, Southampton, Mass. 01073**[22] Filed:** May 3, 1971**[21] Appl. No.:** 139,839**Related U.S. Application Data****[63]** Continuation-in-part of Ser. No. 11,195, Feb. 13, 1970, abandoned.**[52] U.S. Cl.**.....350/201**[51] Int. Cl.**.....G02b 17/08**[58] Field of Search**.....350/199, 200, 201**[56] References Cited****UNITED STATES PATENTS**

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Primary Examiner—John K. Corbin*Attorney*—Robert Ames Norton et al.**[57] ABSTRACT**

A fixed optics telescope is described with two meniscus shaped lenses fixed at the ends of the telescope body. The lenses have spherical surfaces of long radius of curvature. The first meniscus at the end of the telescope which is struck by light rays has a small part of the center formed into a mirror by silvering, aluminizing, and the like. The rear or convex surface of the meniscus at the other end of the telescope housing is formed into an annular mirror with a clear central portion. All surfaces are spherically ground and preferably have identical radii of curvature. The system is catadioptric, entering rays are preferably refracted by four passages through the lenses which corrects spherical aberration in the mirrors, which in this preferred form are second surface mirrors.

6 Claims, 2 Drawing Figures